

Claims

- [c1] 1. A chip structure with bumps comprising:
a chip having an active surface and at least a bonding pad, wherein the bonding pad is formed on the active surface; and
at least a bump disposed on the bonding pad, and the bump comprising:
a medium layer disposed on the bonding pad, wherein a material of the medium layer includes zinc;
a bump body disposed on the medium layer, wherein a material of the bump body includes nickel; and
a bump body passivation layer covering the bump body except for a portion of the bump body that connects to the medium layer, wherein a material of the bump body passivation layer includes gold.
- [c2] 2. The chip structure with bumps of claim 1, wherein a height of the bump is about 5 to 10 microns.
- [c3] 3. The chip structure with bumps of claim 1, wherein a thickness of the bump body passivation layer is about 1 to 3 microns.
- [c4] 4. A bump suitable to be disposed on a chip, wherein the chip has an active surface and at least a bonding pad that exposes the active surface, and the bump comprising:
a medium layer disposed on the bonding pad; and
a bump body disposed on the medium layer, wherein a material of the bump body includes nickel.
- [c5] 5. The bump of claim 4, further comprising a bump body passivation layer covering the bump body except for a portion of the bump body that connects to the medium layer.
- [c6] 6. The bump of claim 5, wherein a material of the bump body passivation layer includes gold.
- [c7] 7. The bump of claim 5, wherein a thickness of the bump body passivation layer is about 1 to 3 microns.

- [c8] 8. The bump of claim 4, wherein a height of the bump is about 5 to 10 microns.
- [c9] 9. The bump of claim 4, wherein a material of the medium layer includes zinc.
- [c10] 10. A bump suitable to be disposed on a chip, wherein the chip has an active surface and at least a bonding pad that exposes the active surface, and the bump comprising:
a medium layer disposed on the bonding pad, wherein a material of the medium layer includes zinc; and
a bump body disposed on the medium layer.
- [c11] 11. The bump of claim 10, further comprising a bump body passivation layer covering the bump body except for a portion of the bump body that connects to the medium layer.
- [c12] 12. The bump of claim 11, wherein a material of the bump body passivation layer includes gold.
- [c13] 13. The bump of claim 11, wherein a thickness of the bump body passivation layer is about 1 to 3 microns.
- [c14] 14. The bump of claim 10, wherein a height of the bump is about 5 to 10 microns.
- [c15] 15. A process for fabricating a bump, wherein the bump is disposed on a chip that has an active surface and at least a bonding pad, and the bonding pad exposes the active surface, the process comprising:
performing an activation step, depositing a medium layer on the bonding pad;
and
forming at least a bump body on the medium layer in an electricless plating way.
- [c16] 16. The process of claim 15, wherein a material of the bump body is nickel.
- [c17] 17. The process of claim 15, wherein a material of the medium layer is zinc.
- [c18] 18. The process of claim 15, before performing the activation step, further comprising a photolithography step, forming a photo resist layer on the chip,

wherein the photo resist layer has at least an opening that exposes the bonding pad, and after forming the bump body, further comprising removing the photo resist layer from the chip.

[c19] 19. The process of claim 15, after forming the bump body, further comprising forming a bump body passivation layer on the bump body covering the bump body except for a portion of the bump body that connects to the medium layer.

[c20] 20. The process of claim 19, wherein a material of the bump body passivation layer is gold.